FIG. 1

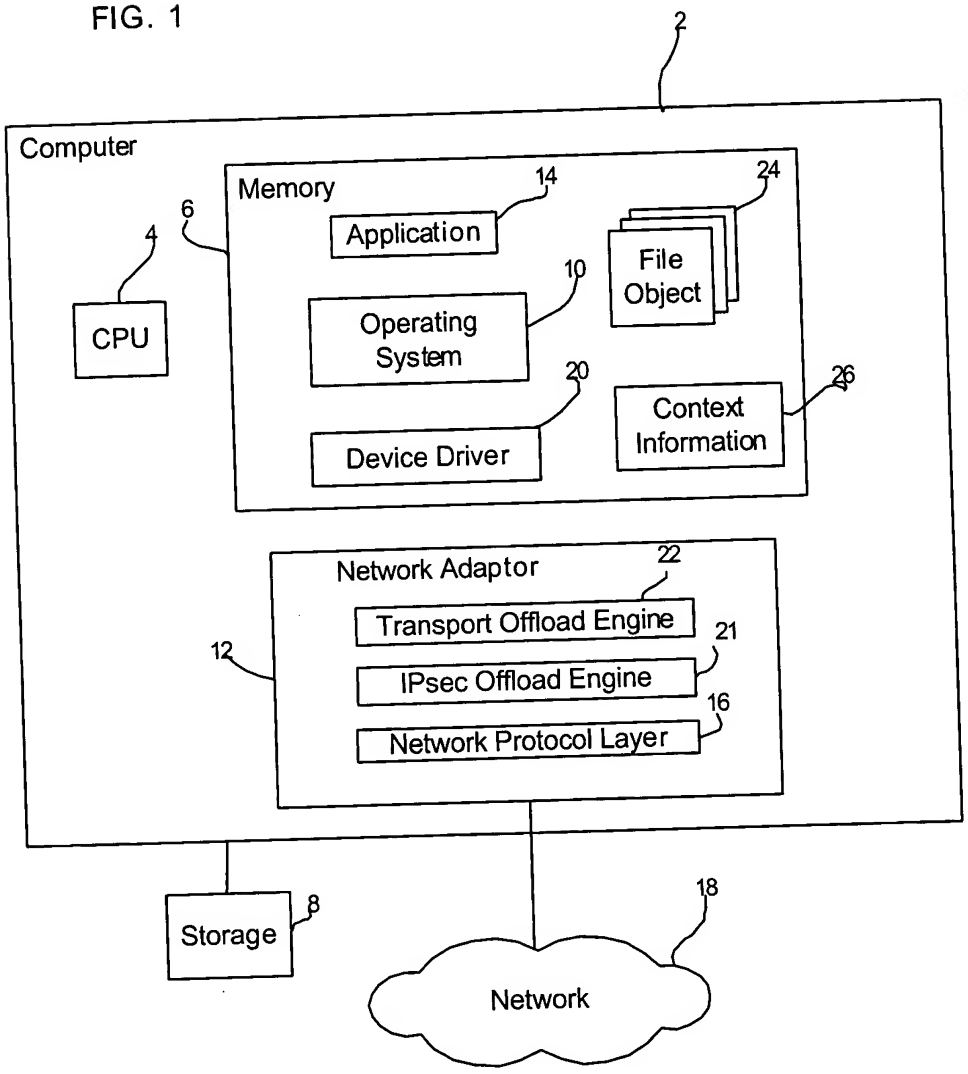
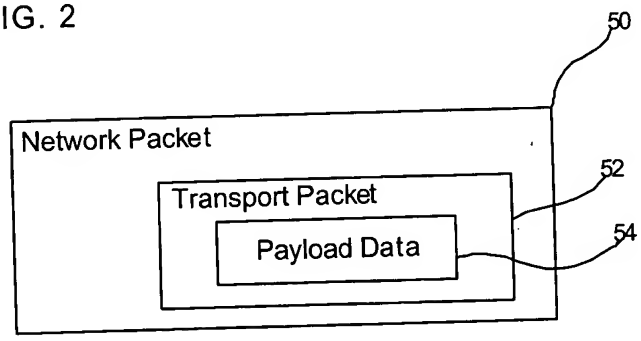

2
Computer
Memory
14
Application
24
File Object
6
4
CPU
10
Operating System
20
Device Driver
26
Context Information
Network Adaptor
22
Transport Offload Engine
12
21
IPsec Offload Engine
16
Network Protocol Layer
8
Storage
18
Network

FIG. 2


50
Network Packet
52
Transport Packet
54
Payload Data

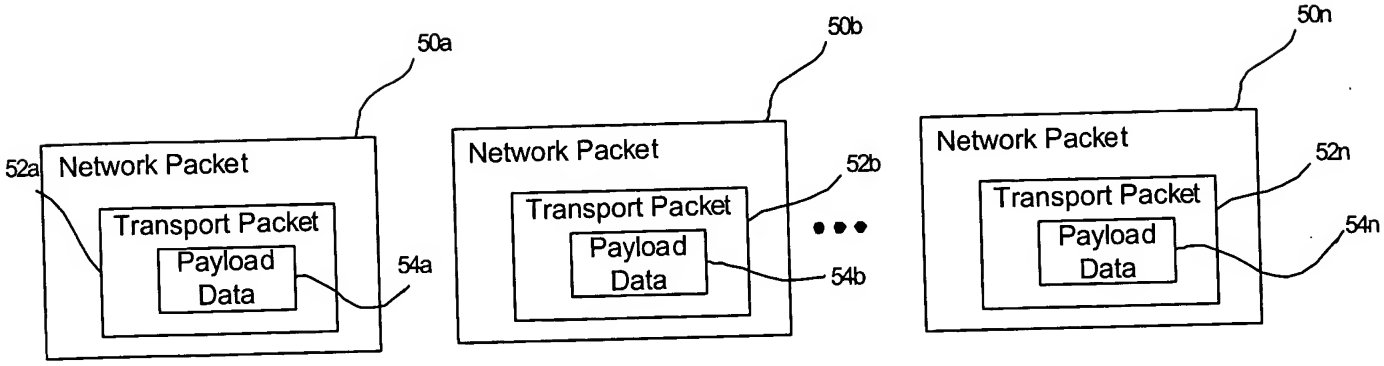

50a
50b
50n
52a
Network Packet
Transport Packet
Payload Data
54a
Network Packet
52b
Transport Packet
Payload Data
54b
Network Packet
52n
Transport Packet
Payload Data
54n

FIG. 3

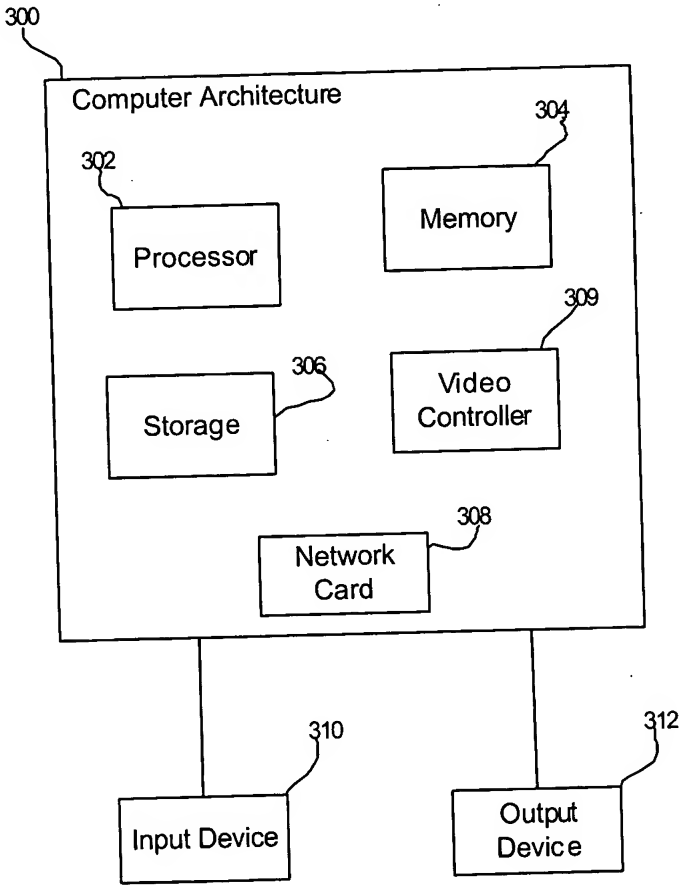

300
Computer Architecture
304
302
Memory
Processor
309
306
Video Controller
Storage
308
Network Card
310
312
Input Device
Output Device

FIG. 6

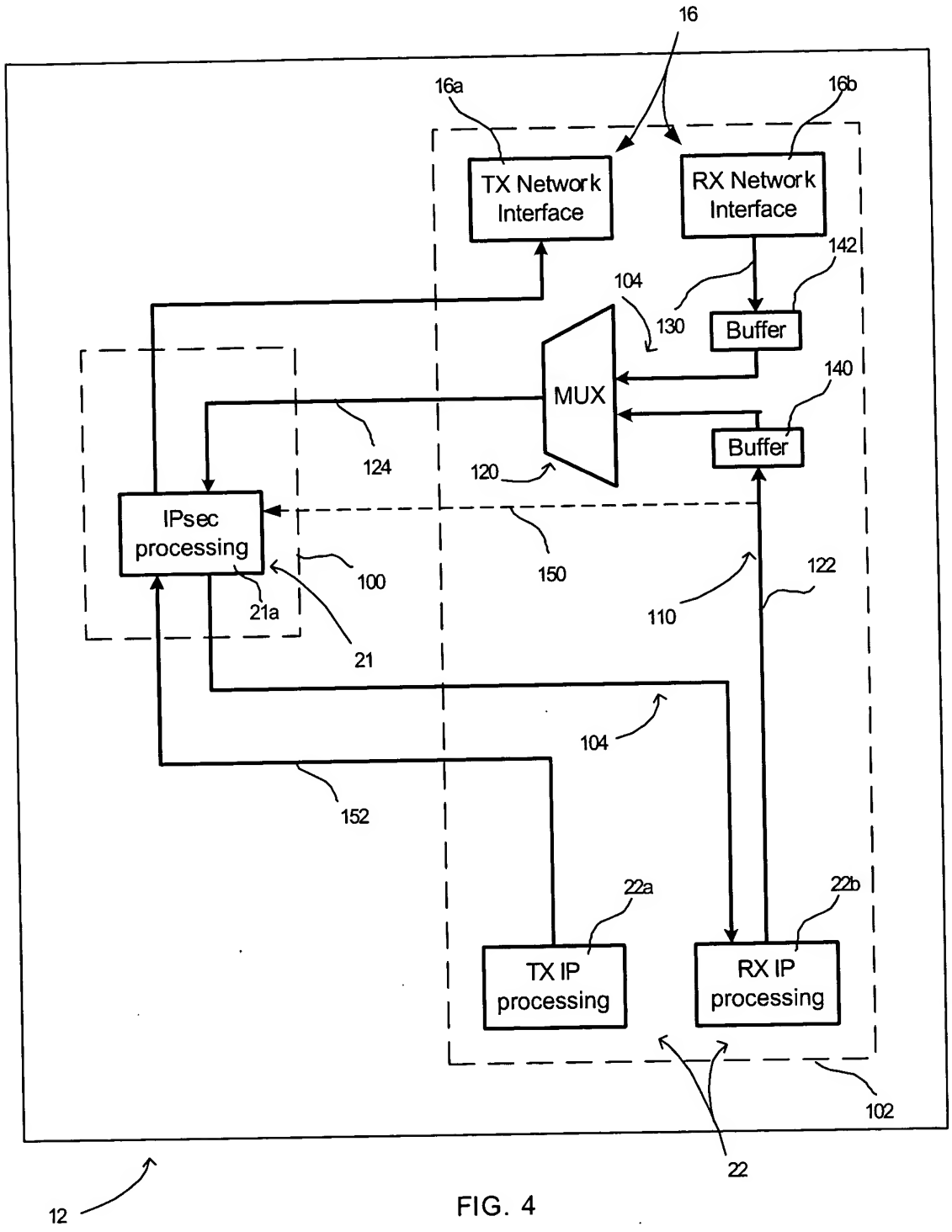

16
16a
16b
TX Network Interface
RX Network Interface
142
104
130
Buffer
MUX
140
Buffer
124
120
IPsec processing
150
100
21a
21
110
122
104
152
22a
22b
TX IP processing
RX IP processing
102
22
12

FIG. 4

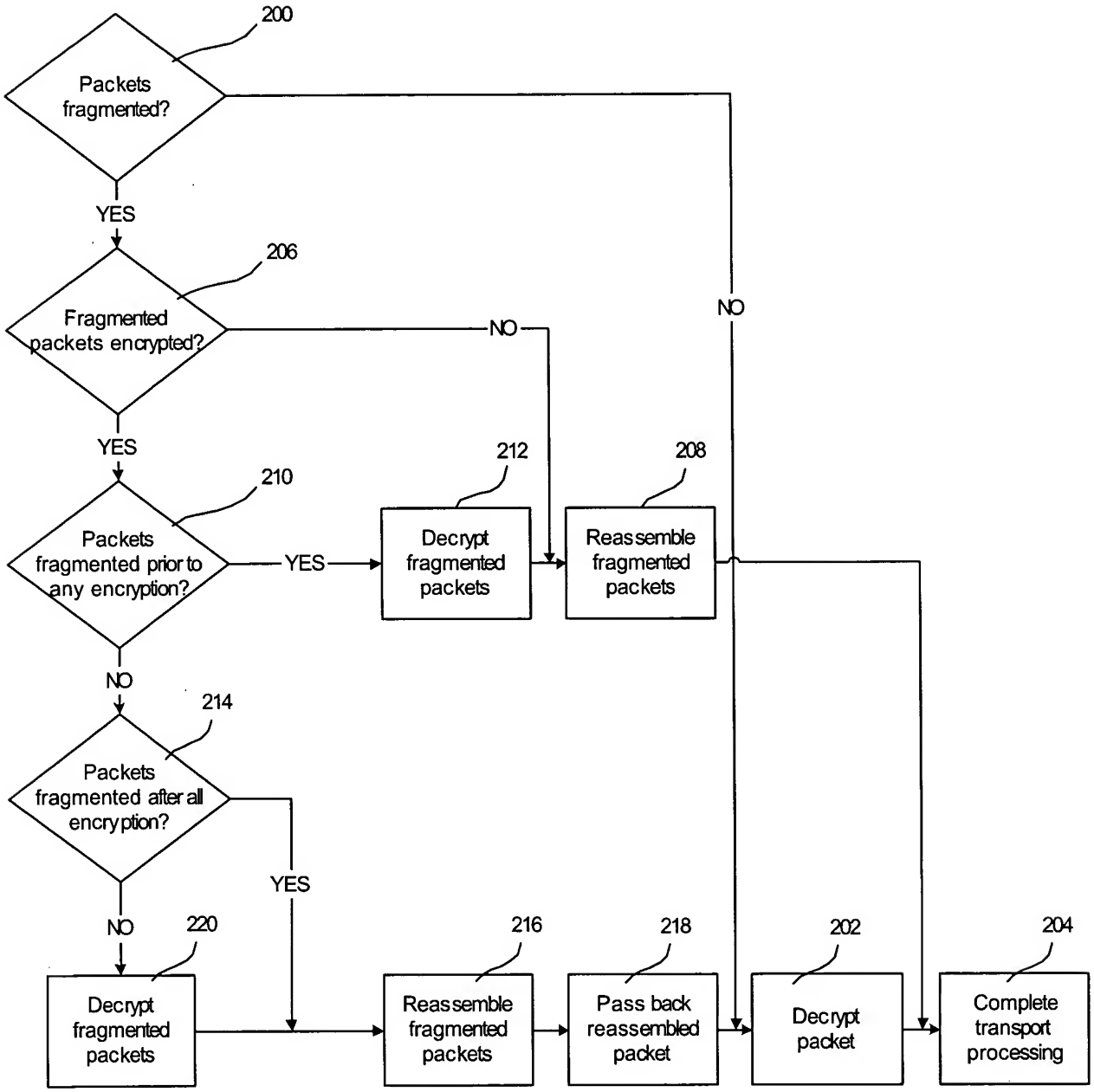

200
Packets fragmented?
YES
NO
206
Fragmented packets encrypted?
NO
YES
210
Packets fragmented prior to any encryption?
YES
212
Decrypt fragmented packets
208
Reassemble fragmented packets
NO
214
Packets fragmented after all encryption?
YES
NO
220
Decrypt fragmented packets
216
Reassemble fragmented packets
218
Pass back reassembled packet
202
Decrypt packet
204
Complete transport processing

FIG. 5

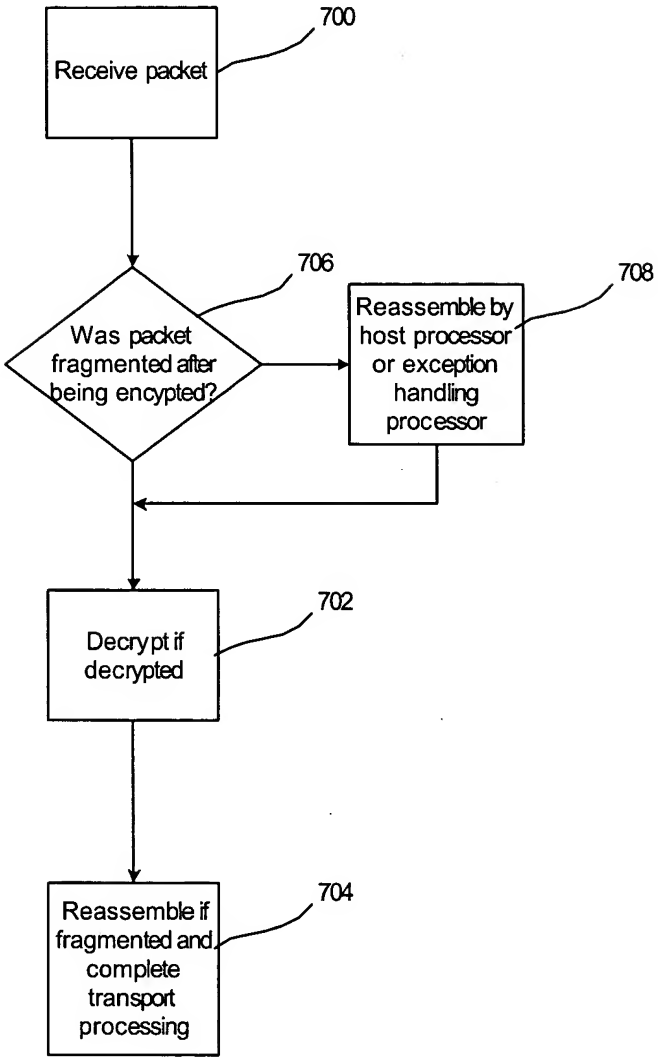


FIG. 7
Prior Art